



Are students being taken for a ride?

Task One: How did students travel to school?

1. Go to the CensusAtSchool Random Sampler and get a sample of at least 100 students from your state/territory. (You can try to get a sample from a postcode range that covers your school but, please be aware that successfully getting a sample will depend on how many students submitted a questionnaire. The larger the postcode range the greater the chance of getting a sample)

Reference year *Select a year. (Don't select 2006, you use 2006 data in Task Two)*
 Select questions *All*

2. Complete the table below:

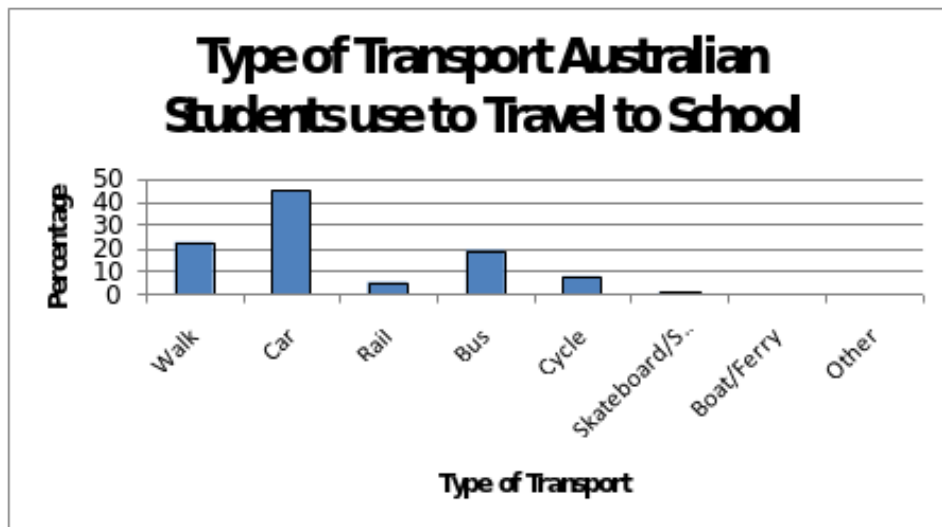
How Australian Students Travel to School

	Number of students	Percentage of students		
Walk	22	22		
Car	45	45		
	<i>Teacher Note: Answers will vary if different data sets are used. This data set is the first 100 from the excel spread for 2008 attached with this lesson on the ARS</i>			
Bus			19	
Cycle			8	
Skateboard/ Scooter/ Rollerblade			1	Not Included
Boat/Ferry	0	0	Included	Included
Same Location as School	Not Included	Not Included		
Motor Cycle	Not Included	Not Included		

Other	0	0		
Total	100	100		

(Hint: It will be easier to count the number of students in each category if you sort the data first. If you are good at Excel it will be even easier if you use the [COUNTIF](#) function to do the counting for you. The two extra columns are for Question 5)

3. Draw a graph to represent the data in your table.



4. Write an answer to the question “How did students travel to school?”

Answers will vary. Focus on natural patterns in the data, such as maximums and minimums. For example: Most Australian students travel to school by car. Approximately equal numbers of 1 in 5 students use the Bus or Walk. No students use a boat or ferry.

Task Two: Have things changed since 2006?

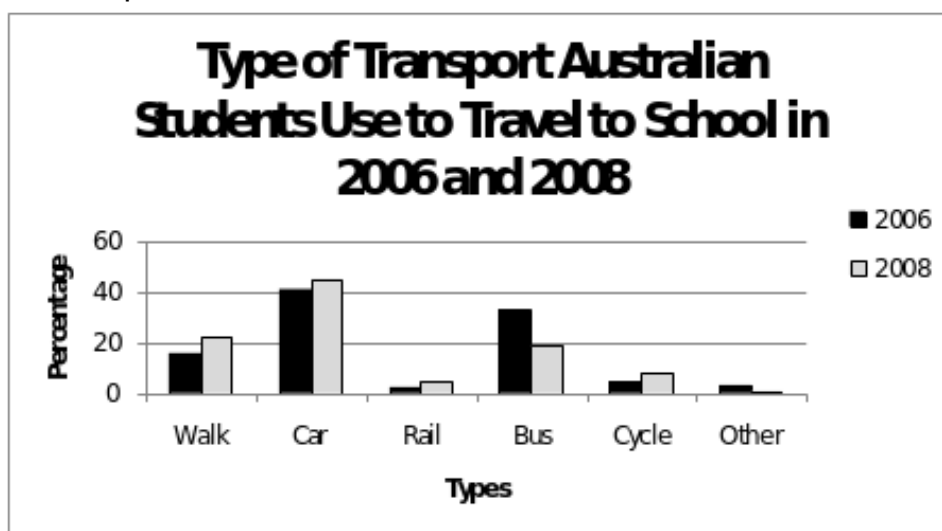
5. Complete a table similar to the one above for 2006 data. You can prepare a separate table or use the two extra columns in Question 2.

	Number of students 2008	Percentage of students 2008	Number of students 2006	Percentage of students 2006
Walk	22	22	21	16
Car	45	45	55	41
Rail	5	5	3	2
Bus	19	19	45	34

Cycle	8	8	6	4
Skateboard/ Scooter/ Rollerblade	1	1	Not included	Not included
Boat/Ferry	0	0	Not included	Not included
Other	0	0	1	1
Same Location as School	Not included	Not included	2	1
Motor Cycle	Not included	Not included	1	1
Total	100	100	134	100

Teacher Note: Answers will vary if different data sets are used. This data set is the first 100 from the Excel spread sheet for a 2006 random sample. Students who used more than one type of transport could select more than one option, this is why there are 134 total answers. Answers are rounded to whole numbers.

- 6.** Draw a graph to represent the data in your table. A side-by-side bar chart with both sets of data on the same axis will make comparisons clear to see.



Teacher Note: Data that is not common to both 2006 and 2008 respectively have been put

- 7.** Write an answer to the question “Has there been any change between 2006 and now?” and suggest any reasons.

From 2006 to 2008 there was an increase in students walking, going by car, rail and cycling to school. There was a decrease in students using the bus or other types of transport. The decrease in students using the bus might indicate that more rail networks had been built in two years, or new schools were built in suburbs closer to where students lived, so students could walk instead of bus.

8. Are there any difficulties in comparing the two sets of data?

What are they and how important are they?

There were difficulties involved in the different categories of types of transport. For example, 'Same Location' and 'Motorcycle' were only included in 2006, and 'Skateboard/Scooter/Rollerblade' and 'Boat/Ferry' were only in 2008. This was resolved when graphing the two years together by combining the respective data with 'Other' for each year. The second difficulty relates to the 2006 data, where students could select more than one option, so there were 134 entries for 100 students. This problem is solved by using the percentages to compare the 2006 and the 2008 data.

Task Three: Present your findings

9. Display your table, graph and findings in a creative and entertaining way and present it to the rest of your class.

Extension

11. Take a survey of your class and repeat this lesson using that data.

12. Is your class a typical Australian class? Explain?